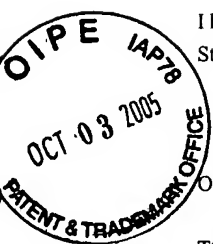


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PATENT
Attorney Docket No.: 16869B-098300US
Client Ref. No.: HAL ID 289

On 9/30/05
TOWNSEND and TOWNSEND and CREW LLP
By: [Signature]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Yuichi Yagawa

Application No.: 10/806,998

Filed: March 24, 2004

For: Distributed Data Management
System

Customer No.: 20350

Confirmation No. 2821

Examiner: Unassigned

Technology Center/Art Unit: 2171

RENEWED
PETITION TO MAKE SPECIAL FOR
NEW APPLICATION PURSUANT TO
37 C.F.R. § 1.102(d) &
M.P.E.P. § 708.02, Item VIII,
ACCELERATED EXAMINATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

A petition to make special the above-identified application in accordance with MPEP §708.02, Item VIII, accelerated examination was filed August 1, 2005. A decision mailed August 30, 2005 dismissed said petition.

This is a renewed petition to make special the above-identified application in accordance with MPEP § 708.02, Item VIII, accelerated examination. The application has not received any examination by the Examiner.

(A) The Commissioner is authorized to charge the petition fee of \$130 under 37 C.F.R. § 1.17(h), and any additional fees that may be associated with this petition may be charged to Deposit Account No. 20-1430.

(B) All the claims are believed to be directed to a single invention. If the examiner determines that all the claims presented are not obviously directed to a single invention, then Applicant will make an election without traverse as a prerequisite to the grant of special status where the specific grouping of claims will be determined by the examiner.

(C) A pre-examination search was performed by an independent patent search firm. The pre-examination search includes a classification search, a computer database search, and a keyword search. The classification search covered Class 360, subclass 48; Class, 707, subclasses 200, 201, and 204; Class, 709, subclasses 203, 217, and 218; Class 710, subclass 74; and Class 711, subclasses 112, 154, 161, and 162. Additionally, a keyword search was performed on the USPTO full-text database, including published applications. The following references were identified in the search report:

- (1) U.S. Patent Nos.:
 - 5,790,886 Allen
 - 6,035,351 Billings et al.
- (2) U.S. Patent Application Publication Nos.:
 - 2002/0065835 Fujisaki
 - 2002/0147734 Shoup et al.
 - 2002/0174306 Gajjar et al.
 - 2003/0229637 Baxter et al.
 - 2004/0039891 Leung et al.
- (3) Foreign Publication Nos.:
 - EP 0617373 Burket et al.
 - GB 2367163 Martin et al.

(D) The above references have been submitted in the August 1 petition.

(E) Set forth below is a detailed discussion of the references, pointing out with particularity how the claimed subject matter recited in the claims, amended according to the preliminary amendment filed herewith, is distinguishable over the references.

Claimed Subject Matter of the Present Invention

There are six independent claims among the 28 claims that are pending in the instant application. The claims have been amended according to the preliminary amendment filed in the August 1 petition.

Independent **claim 1** relates to a method for distributing data among data storage systems. The method includes obtaining selection criteria. Profile information based on the content of a data object is produced. The data object is selectively copied from its location in a first data storage system to a second data storage system based on the selection criteria and on the profile information.

Independent **claim 12** relates to a data storage system comprising data servers, each having a client interface, a data storage interface, and a data processing component. The data processing component produces profile information comprising information associated with content of a data object. The data processing component compares selection criteria with the profile information, where the selection criteria are associated with a second data server and determine whether the data object is copied to the second data server. The data processing component performs the copying depending on the outcome of the comparison.

Independent **claim 18** relates to a method for distributing data among data storage systems. The method includes obtaining selection criteria and storing the selection criteria on a first data storage system. Profile information based on the content of a data object stored in the first data storage system is produced. The data object is selectively copied from its location in the first data storage system to a second data storage system based on the selection criteria and on the profile information.

Independent **claim 20** relates to a data system comprising plural data centers and plural client systems. Each data center includes a data storage component, a file server, a replicator component, a receiver component, and file selection criteria. The replicator component receives selection indications from target data centers. The replicator component selectively communicates a data object to a target data center based on the selection indication of that target data center. The replicator component also produces profile data for a data object, the profile data being representative of content of the data object. The receiver component receives

profile data from a source data center. The receiver component then sends a selection indication, determined based on the file selection criteria and the profile data, to the source data center.

Independent **claim 24** relates to a data system comprising plural data centers and plural client systems. Each data center includes a data storage component, a file server, a replicator component, and a collection of file selection criteria provided from other data centers. The replicator component produces profile data for a data object, the profile data being representative of content of the data object. The replicator component selectively communicates a data object to a target data center based on the profile data and the selection criteria corresponding to that target data center.

Independent **claim 27** relates to a data system comprising plural data centers, each data center having plural client systems. The data system further comprises a selection server in communication with the data centers. Each data center includes a data storage component, a file server, and a replicator component. The replicator component produces profile data for a data object and communicates it to the selection server, the profile data being representative of content of the data object. The replicator component receives selection indicators from the selection server, wherein the data object is selectively communicated to target data centers based on the selection indicator. The selection server includes a collection of selection criteria received from the data centers, and produces the selection indicators based on the profile data and on the collection of selection criteria.

U.S. Patent No. 5,790,886 Allen

The patent to Allen discloses a method and system for automatically allocating space within a data storage system for multiple data sets which may include units of data, databases, files or objects. Each data set preferably includes a group of associated preference/requirement parameters which are arranged in a hierarchical order and then compared to corresponding data storage system characteristics for available devices. The data set preference/requirement parameters may include performance, size, availability, location, portability, share status and other attributes which affect data storage system selection. Data storage systems may include solid-state memory, disk drives, tape drives, and other peripheral

storage systems. Data storage system characteristics may thus represent available space, cache, performance, portability, volatility, location, cost, fragmentation, and other characteristics which address user needs. The data set preference/requirement parameter hierarchy is established for each data set, listing each parameter from a "most important" parameter to a "least important" parameter. Each attempted storage of a data set will result in an analysis of all available data storage systems and the creation of a linked chain of available data storage systems representing an ordered sequence of preferred data storage systems. Data storage system selection is then performed utilizing this preference chain, which includes all candidate storage systems. As illustrated, the user or the system may select a plurality of data set parameters which, as described above, may include performance, size, availability, location, portability, share status and other attributes which affect data storage system selection. (See, e.g., Abstract and column 6, lines 7-34).

As to **claim 1**, the reference does not show or suggest distributing data among data storage systems by "producing profile information ... comprising content-based information associated with said first data object" and "selectively copying said first data object ... based on said selection criteria and on said profile information." See also **claim 18**. By comparison, the Allen reference shows preference/requirement parameters of a data set are compared to corresponding data storage system characteristics for available devices. The data set preference/requirement parameters may include performance, size, availability, location, portability, share status and other attributes which affect data storage system selection. *Col. 3, lines 26-33*. Allen does not show or suggest "producing profile information ... comprising content-based information associated with said first data object" and "selectively copying said first data object ... based on said selection criteria and on said profile information."

As to **claim 12**, the reference does not show or suggest a data processing component configured "produce profile information associated with a first data object ... comprising content-based information" for the same reason as discussed above with respect to claim 1. The reference does not show or suggest that the data processing component is configured to "initiate a comparison of selection criteria with said profile information ...; and [to]

copy said first data object ... depending on an outcome of said comparison,” also for the same reason as set forth with respect to claim 1.

As to **claim 20**, the Allen reference discloses data set preference/requirement parameters may include performance, size, availability, location, portability, share status and other attributes which affect data storage system selection, as noted above. Therefore, the reference does not show or suggest a data system where a “replicator component is operable to produce profile data for a data object that is to be replicated ... and to selectively communicate said data object to a candidate target data center based on [a] selection indication, ... said selection indication being determined based on [] file selection criteria and on said profile data.” See also **claims 24 and 27**.

U.S. Patent No. 6,035,351 Billings et al.

The patent to Billings et al. discloses storing data on a data processing system is done upon generation of a data file by displaying a user interface allowing user selection of storage criteria for the data file. Responsive to user selection of storage criteria for a file determining a physical format type for the file from a plurality of available physical format types. Then the file is stored on a direct access storage device as at least a first record conforming with the determined physical format type. Implementation of the invention includes providing for user initiated editing and modification of the file descriptor to control physical aspects of storage of a file on auxiliary storage. Data may be written to a direct access storage device having a predefined physical file format, in which case data is directed to the areas having the preferred format types for the data, or to a device where physical file format is selectable. The physical file format relates to the arrangement and data density of data tracks to which the data of a file is written. (See, e.g., Abstract and column 5, lines 18-35).

As understood, the reference discloses that implementation of their invention includes providing for user initiated editing and modification of the file descriptor to control physical aspects of storage of a file on auxiliary storage. *Col. 5, lines 18-22*. For example, their Fig. 4 shows a logical flow chart of an operating system process for editing of a file descriptor upon creation of a file. Billings et al. do not show or suggest “producing profile information ...

comprising content-based information associated with said first data object” and “selectively copying said first data object ... based on said selection criteria and on said profile information,” as recited in **claim 1**. Billings et al. furthermore do not show the various elements of independent **claims 12, 18, 20, 24, and 27** mentioned above.

U.S. Publication No. 2002/0065835 Fujisaki

The published patent application of Fujisaki discloses a file system assigning a specific attribute to a file, a file management method assigning a specific attribute to a file, and a storage medium on which is recorded a program for managing files. In a file system configured by one or a plurality of volumes, policy attribute data is set in correspondence with the path information of a directory, and a file is managed based on the policy attribute data. As a result, a policy specific to the directory can be set while maintaining the compatibility with an existing file system. For example, a volume number is set as the policy attribute data of a file, so that a file system administrator can specify the storage location of the file. First of all, attribute data to be processed, which is possessed by a parent directory, is obtained from metadata (information for managing data such as the attribute, contents, storage location, etc. of data). The attribute data to be processed (policy attribute data), which is possessed by the registered policy data, is compared with the obtained. Then, it is determined whether or not the attribute data of the parent directory is inherited according to the inheritance attribute defined for each attribute data. If it is determined that the attribute data of the parent directory is inherited, this data is assigned to the target directory. If it is determined that the attribute data of the parent directory is not inherited, specified attribute data is assigned to the target directory. (See, e.g., Abstract and paragraph 95).

As understood, Fujisaki discloses the setting policy attributes for a file and managing files based on the policy attributes. This is exemplified as described in paragraph [95] of the reference, and summarized above. Fujisaki does not show or suggest the recited “producing profile information ... comprising content-based information associated with said first data object” and “selectively copying said first data object ... based on said selection criteria

and on said profile information” of **claim 1**. Fujisaki also does not show or suggest the similarly recited elements of independent **claims 12, 18, 20, 24, and 27** mentioned above.

U.S. Publication No. 2002/0147734 Shoup et al.

The published patent application of Shoup et al. discloses a policy based archiving system that receives data files in various formats and with various attributes. The archiving system examines each data file's attributes to correlate each data file with at least one policy by employing policy predicates. A policy is a collection of actions and decisions relating to the various storage and processing modules of the archiving system. In one aspect, the archiving system scans the content of a received data file to correlate the data file to a policy in accordance with the semantic content of the data file. The data file attributes are examined in accordance with the policy predicates (step 84). In one embodiment, policy predicates dictate that the semantic content of the data file is examined to extract key terms and phrases. In this embodiment, the extracted content is compared to predefined content to correlate the data file to a policy in accordance with the data file's semantic content. In one embodiment, the data file's semantic content is parsed by employing a parsing algorithm. The parsing algorithm preferably searches for content in accordance with rules. (See, e.g., Abstract and paragraph 23).

As understood, Shoup et al. disclose associating policy with file attributes, and then associates the policy with the file. Fig. 4 exemplifies this process and is disclosed in paragraph [23] of the reference, and summarized above. The reference does not show or suggest “producing profile information ... comprising content-based information associated with said first data object” and “selectively copying said first data object ... based on said selection criteria and on said profile information” as recited in **claim 1**. Shoup et al. also do not show or suggest the similarly recited elements of independent **claims 12, 18, 20, 24, and 27** mentioned above.

U.S. Publication No. 2002/0174306 Gajjar et al.

The published patent application of Gajjar et al. discloses a storage provisioning policy that is created by specifying storage heuristics for storage attributes using storage heuristic metadata. Storage attributes characterize a storage device and storage heuristic metadata

describe how to specify a storage heuristic. Using the storage heuristic metadata, storage heuristics are defined to express a rule or constraint as a function of a storage attribute. In addition, the storage provisioning policy may also specify mapping rules for exporting the storage to a consumer of the storage, such as the server or server cluster. In an embodiment, a method for creating one or more storage provisioning policies is provided. The method comprises: defining one or more storage attributes; defining one or more storage heuristic metadata associated with the one or more storage attributes; and specifying one or more storage heuristics using the defined one or more storage heuristic metadata associated with the one or more defined storage attributes to create the storage provisioning policy, the storage provisioning policy usable to provision a storage device, wherein the provisioned storage device includes discoverable data that satisfies the storage heuristics for the storage attributes. (See, e.g., Abstract and paragraphs [0008] - [0010]).

Gajjar et al. disclose selection of storage for storing files. For example, in paragraph [055], this disclose “FIG. 7 illustrates a method for provisioning storage using a storage provisioning policy according to one embodiment. VSX 100 uses the policies to select storage.” Based on a review of the reference, it is believed Gajjar et al. do not describe file selection criteria. Gajjar et al. therefore do not show or suggest “producing profile information ... comprising content-based information associated with said first data object” and “selectively copying said first data object ... based on said selection criteria and on said profile information” as recited in **claim 1**. Gajjar et al. also do not show or suggest the similarly recited elements of independent **claims 12, 18, 20, 24, and 27** mentioned above.

U.S. Publication No. 2003/0229637 Baxter et al.

The published patent application of Baxter et al. discloses a computer implemented method for safeguarding files, comprising the steps of designating a location on a first computer for storage of files to be safeguarded, selecting certain of the files to be safeguarded from the location based upon predetermined selection criteria, copying the selected files to be safeguarded to a second computer, deleting the selected files from the first computer, processing the selected files to be safeguarded on the second computer, and storing the selected

files to be safeguarded in a restricted access database. In a second embodiment, the file is copied to a second computer, but not deleted from the first computer, in addition to all other steps of the method. The invention also includes an apparatus for carrying out the methods of the invention. The system is capable of interpreting the content of a file to provide searchable text. (See, e.g., Abstract, paragraphs [0131] and following, and claim 20).

As discussed above, Baxter et al. use predetermined file selection criteria. As explained in paragraph [0090], "The agent can determine document selection and groupings based on documents' names, locations, dates, or other criteria. Most commonly, the agent selects new or modified documents." Based on a review of the reference, it is believed Baxter et al. do not describe other file selection criteria. Baxter et al. therefore do not show or suggest "producing profile information ... comprising content-based information associated with said first data object" and "selectively copying said first data object ... based on said selection criteria and on said profile information" as recited in **claim 1**. Baxter et al. also do not show or suggest the similarly recited elements of independent **claims 12, 18, 20, 24, and 27** mentioned above.

U.S. Publication No. 2004/0039891 Leung et al.

The published patent application of Leung et al. discloses optimizing storage capacity utilization based upon data storage costs. Techniques for optimizing capacity utilization among multiple storage units based upon costs associated with storing data on the storage units. Embodiments of the present invention automatically determine when data movement is needed to optimization storage utilization for a group of storage units. According to an embodiment of the present invention, in order to optimize storage utilization and storage cost, files are moved from a source storage unit to a target storage unit that has a lower data storage cost associated with it than the source storage unit. The storage units may be assigned to one or more servers. The "file selection criteria information" specifies information identifying conditions related to files. According to an embodiment of the present invention, the selection criteria information for a placement rules specifies one or more clauses (or conditions) related to an attribute of a file such as file type, relevance score of file, file owner, etc. (See, e.g., Abstract and paragraph 116).

As they discuss in paragraph [0060], “A file is then selected to be moved from the volume experiencing the condition detected in step 402 (step 410). Various techniques may be used for selecting the file to be moved from the source volume. According to one technique, the largest file stored on the source volume is selected. According to another technique, the least recently accessed file may be selected to be moved. Other file attributes such as age of the file, type of the file, etc. may also be used to select a file to be moved.” Based on a review of the reference, it is believed there is no other discussion as to file selection criteria. Leung et al. therefore do not show or suggest “producing profile information ... comprising content-based information associated with said first data object” and “selectively copying said first data object ... based on said selection criteria and on said profile information” as recited in **claim 1**. Leung et al. also do not show or suggest the similarly recited elements of independent **claims 12, 18, 20, 24, and 27** mentioned above.

Foreign Publication No. EP 0617373 Burket et al.

The published patent application of Burket et al. discloses a distributed storage system in which an originating storage location establishes the criteria for storage management for a file. When the file is transmitted to other, subsidiary storage locations, it is accompanied by information controlling the storage of the file. For example, the duration of storage will be controlled by the control information. When a master file is deleted from an archive, in accordance with the criteria established at the time of storage, copies of the file at subsidiary locations can either be rendered inaccessible or alternately the storage management for that file can be changed. A feature is the distribution of storage management control information along with the file to diverse storage locations in a complex data processing system. In accordance with the invention, an image object distribution manager processor includes a memory having a management class table in which is stored a user-defined policy for managing the storage of objects at diverse storage locations in a network. The management class table can specify document types and storage classes and for each document type and storage class, the table can provide for the user-defined period for retention of the document in both its master copy form and its derivative copy form. (See, e.g., Abstract and column 2, lines 26-39).

From the above description, Burket et al. do not show or suggest “producing profile information ... comprising content-based information associated with said first data object” and “selectively copying said first data object ... based on said selection criteria and on said profile information” as recited in **claim 1**. Burket et al. also do not show or suggest the similarly recited elements of independent **claims 12, 18, 20, 24, and 27** mentioned above.

Foreign Publication No. GB 2367163 Martin et al.

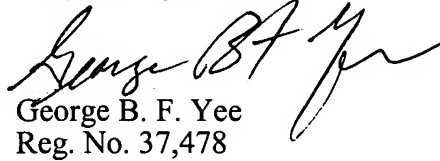
The published patent application of Martin et al. discloses optimized selection and accessing of stored files. A method, apparatus, and computer program are disclosed for a computer-implemented technique for generating file copies with minimal mounting and positioning of storage volumes. The method receives a request to generate file copies specifying file selection criteria, identifies matching files meeting the selection criteria (e.g., type of file, file name, etc.), locates the matching files on their storage volumes, and copies the files to a copy set. Determination of file copying order is optimized by placing greater emphasis on relative storage locations of matching files than on the order in which their copies are requested. The method ensures that each matching file is included, without duplication, in the copy set. The end result is that files are selected based on filter criteria of the inventory view, but are transferred without excessive mounting or positioning of volumes, according to the storage view. (See, e.g., Abstract, p. 9, lines 14-21, p. 10, lines 10-14).

Martin et al. disclose selection criteria on page 10, lines 10-14, “These criteria, received in step 201 of FIG. 3, include some selection attributes, such as the name of the client node, the filespace to which files may belong, the type of files to be included (e.g., backup or archive), and a pattern-matching expression for the file names.” Based on a review of the reference, it is believed they do not disclose other file selection criteria. Martin et al. do not show or suggest “producing profile information ... comprising content-based information associated with said first data object” and “selectively copying said first data object ... based on said selection criteria and on said profile information” as recited in **claim 1**. Martin et al. also do not show or suggest the similarly recited elements of independent **claims 12, 18, 20, 24, and 27** mentioned above.

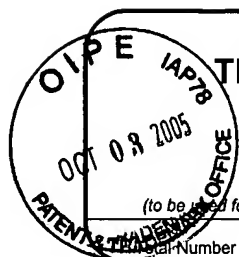
Conclusion

In view of this comments presented in the instant petition and the claim amendments presented in the accompanying preliminary amendment, the Examiner is respectfully requested to issue a first Office Action at an early date.

Respectfully submitted,


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ENCLOSURES (Check all that apply)

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